

## MALIGNANT NEOPLASM OF THE STOMACH IN THE ELDERLY: EPIDEMIOLOGICAL ANALYSIS OF HOSPITALIZATIONS BETWEEN 2020 AND 2024

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**Introduction:** Gastric neoplasms constitute abnormal cellular proliferations that develop in the stomach mucosa, triggered by exogenous (environmental) or endogenous (genetic) factors. Gastric carcinoma represents one of the most incident subtypes in Brazil in recent years. The pathology significantly impacts quality of life, especially in the elderly, who present multiple comorbidities and high clinical vulnerability. The lack of accurate data regarding the temporal trend limits the improvement of specific public policies. The correlation between time and case occurrence is, therefore, fundamental to support effective strategies for prevention, early diagnosis, and proper management. **Objectives:** To analyze the temporal trend of hospital admissions of elderly people for malignant neoplasm of the stomach in Brazil, in the period from 2020 to 2024. **Methods:** This is an epidemiological, descriptive, quantitative, and retrospective study, based on secondary data obtained from the Hospital Morbidity section of the Hospital Information System of SUS (SIH/SUS), made available by the Informatics Department of the Unified Health System (DATASUS). Hospitalizations due to neoplasms in elderly individuals aged 60 and older, from 2020 to 2024, were analyzed, considering variables such as the number of hospitalizations and recorded deaths. Articles published in the last five years addressing malignant gastric neoplasia were included. Studies that were not related to the topic, did not provide the full text were excluded. GraphPad was used for linear regression. **Results:** A total of 98,866 cases of hospitalization of elderly individuals aged 60 years or older for malignant neoplasm of the stomach were recorded in the country during the analyzed years. The angular coefficient, estimated through a simple linear regression, revealed an annual increase of approximately 1,210 hospitalizations per year, with a coefficient of determination ( $R^2$ ) of 0.75, indicating that 75% of the variation in the number of hospitalizations over the analyzed period can be explained by the temporal trend of the model and 95% confidence interval (CI 95%). The p-value = 0.057, even slightly above the 0.05 threshold, suggested an upward trajectory, which may gain statistical significance over the years. Regarding deaths, applying the same method to the 14,984 cases recorded in the same period, an average increase of 141 cases per year was observed, with ( $R^2$ ) of 0.51, indicating that approximately 51% of the variation can be attributed to the temporal trend. Although time impacts the behavior of deaths, the

remaining variability of 49% suggests the influence of other unexamined determinants. The p-value = 0.085 reinforces that, despite the growth trend, time is not a robust predictor of mortality variations from this neoplasm in the elderly. **Conclusion:** The results of this study highlight a worrying scenario regarding hospitalizations due to malignant neoplasm of the stomach in the elderly population. The upward temporal trend in the number of hospitalizations suggests that over time, this growth may become statistically concerning. As for deaths, despite a slight average annual increase, the absence of statistical significance and the considerable unexplained variation may reflect both improvements in care and limitations in information systems, highlighting the need for in-depth investigation that considers the multidimensionality of determinants and unexamined variables.

**Keywords:** Malignant neoplasm of the stomach; elderly; epidemiology.